**FILED VIA EFS** 

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Flomerfelt et al.

**Application No.** 10/579,879

Filed: May 17, 2006 Confirmation No.

For: SPATIAL FOR ALTERING CELL

**PROLIFERATION** 

Examiner: Art Unit:

Attorney Reference No. 4239-64851-02

FILED VIA EFS COMMISSIONER FOR PATENTS P.O. BOX 1450 ALEXANDRIA, VA 22313-1450

#### MISSING PARTS TRANSMITTAL LETTER

Enclosed for filing in the application referenced above are the following:

$\boxtimes$	Copy of Notification to Comply with Requirements for Patent Applications
	Containing Nucleotide and/or Amino Acid Sequence Disclosures dated January 4,
	2007 (10 pages).

- Amendment to Insert Sequence Listing and Correct Sequence Errors (3 pages).
- Sequence Listing (14 pages).
- The fees associated with filing this Amendment and Response are being paid concurrently via EFS. The Director is hereby authorized to charge any additional fees that may be required, or credit over-payment, to Deposit Account No. 02-4550.

Respectfully submitted,

KLARQUIST SPARKMAN, LLP

One World Trade Center, Suite 1600 121 S.W. Salmon Street Portland, Oregon 97204

Telephone: (503) 595-5300 Facsimile: (503) 595-5301

By /Gillian L. Bunker/

Gillian L. Bunker, Ph.D. Registration No. 47,461



### UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

ATTY. DOCKET NO. FIRST NAMED APPLICANT U.S. APPLICATION NUMBER NO. 42396485102 Francis A. Flomerfelt 10/579,879 INTERNATIONAL APPLICATION NO. PCT/US03/36874 36218 PRIORITY DATE I.A. FILING DATE

314107, 7/4/07

KLARQUIST SPARKMAN, LLP 121 S.W. SALMON STREET **SUITE #1600** 

PORTLAND, OR 97204-2988

**CONFIRMATION NO. 4862 371 FORMALITIES LETTER** 

\*OC00000021831621\*

11/18/2003

Date Mailed: 01/04/2007

## NOTIFICATION TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE AND/OR AMINO ACID SEQUENCE DISCLOSURES

Applicant is given TWO MONTHS FROM THE DATE OF THIS NOTICE within which to file the items indicated below to avoid abandonment. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

The following items MUST be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

#### SUMMARY OF FEES DUE:

Total additional fees required for this application is \$-250 for a Large Entity:

- This application clearly fails to comply with the requirements of 37 CFR. 1.821-1.825. Applicant's attention is directed to the final rulemaking notice published at 55 FR 18230 (May 1, 1990), and 1114 OG 29 (May 15, 1990). If the effective filing date is on or after July 1, 1998, see the final rulemaking notice published at 63 FR 29620 (June 1, 1998) and 1211 OG 82 (June 23, 1998). If the effective filing date is on or after September 8, 2000, see the final rulemaking notice published in the Federal Register at 65 FR 54604 (September 8, 2000) and 1238 OG 145 (September 19, 2000). Applicant must provide an initial computer readable form (CRF) copy of the "Sequence Listing", an initial paper or compact disc copy of the "Sequence Listing", as well as an amendment specifically directing its entry into the application. Applicant must also provide a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825 (d). If applicant desires the sequence listing in the instant application to be identical with that of another application on file in the U.S. Patent and Trademark Office, such request in accordance with 37 CFR 1.821 (e) may be submitted in lieu of a new CRF.
- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

(A previous payment of \$250 will be applied to the additional fees indicated above.)

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:

- For Rules Interpretation, call (571) 272-0951
- For Patentin Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.
- Send e-mail correspondence for Patentin Software Program Help @ ebc@uspto.gov

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web. https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or visit our website at <a href="http://www.uspto.gov/ebc.">http://www.uspto.gov/ebc.</a>

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

**VONDA M WALLACE** 

Telephone: (703) 308-9140 EXT 225

#### PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/579,879	PCT/US03/36874	42396485102

FORM PCT/DO/EO/922 (371 Formalities Notice)

## STIC Biotechnology Systems Branch

# RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:	101579,819
Source:	TRUP
Date Processed by STIC:	5-31-06

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,

2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER</u> <u>VERSION 4.4.0 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<a href="http://www.uspto.gov/ebc/efs/downloads/documents.htm">http://www.uspto.gov/ebc/efs/downloads/documents.htm</a>, EFS Submission User Manual - ePAVE)

2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street,
Alexandria, VA 22314

Revised 01/10/06



RAW SEQUENCE LISTING DATE: 05/31/2006
PATENT APPLICATION: US/10/579,879 TIME: 13:23:45

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             Gress, Ronald
     9 <120> TITLE OF INVENTION: SPATIAL FOR ALTERING CELL PROLIFERATION
     11 <130> FILE REFERENCE: 4239-64851-02
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      46 ctc cag aaa gag act gtg gtc cca ggc att gtg gat ttc gag ctg atc
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67	Gln	Pro	Thr	Phe	Leu	Ser	Arg	Cy	s Le	u Me	et G	ly i	Met	Pro	Th	r I	le :	Ser		
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75	Ser	Asp	Thr	Trp	Arg	Lys	Lys	Le	ս Լչ	s A	sp L	eu .	Ala	Ser	: Al	g v	a1	THIL		
76	165					160					1	65						1,0	'	641
78	gtc	ttc	act	aag	gaa	ato	cag	CC	a aa	ig c	cc g	at	gag	gtt	. gs	JC 9	-1	yca		041
79	Val	Phe	Thr	Lys	Glu	Ile	Gln	Pr	o L)	/S P	ro A	sp	GIU	vaı	. 6	LY V	aı 85	MIC		
80					175						80			~+~		_				687
82	caa	aga	atg	gag	cct	aga	aaa	aa	a ag	gg c	Ct t	CC	taa	gu		Jula	a			•••
83	Gln	Arg				Arg	Lys	: гл	s Al	rg P	ro s	er					*			1 - 1 , mags
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988 999 100 110 110 110 110 110 110 110 110	3 <213 3 <210 3 <210 3 <20 4 Le 3 S S S S S S S S S S S S S S S S S S S	1> I 2> T 13> 00> Eu Ph Lu Va al Ph 50 rg Lo rg Va rg C	LENGT TYPE: ORGA SEQU ne Le al Ti eu Pr 3! ro G: 0 ys P: eu S al T	TH: 1: PRIMANISM JENCE ON GI O	1: Multis Multis H. Sis I is	sn Vaco Liner H al A hr S fis S fle G er L	ys Alis G. sp P. ser G O er P ln A eu S	yr I la 6 la	Asp 10 31u Pro Phe Ile	Pro 25 Val Leu Thr Ser Ala 105 Leu	Gln Gly Ile Pro Arg 90 Gly Thr	Pro Let His Se: 75 His Ly	o Glu Gl s Gl s Gl r Al s Hi s Pi n Pi	u T  n L  4  lu G  la T  is F	hr ys 5 lu yr ro al	Lys 30 Glu Leu Arg Gln Cys 110 Phe	Pro Th. Ly Ph Pr 95 Va	o G r V s T e G 6 8	lu al hr ely o lln val	
988 999 100 110 110 110 110 110 110 110 110	3 <21 9 <21 10 <2 10 <2 10 <2 10 <2 10 <2 10 <2 11 <1 11 <1 12 <1 13 <1 14 <1 15 <1 16 <1 17 <1 17 <1 18 <1 19	1> I 2> T 13> 100> 10 Va in Va al Pi 50 If Ly rg La rg C	LENGTYPE: ORGA SEQUENCE Le al The 3! ro G: Oys P: eu S al T	TH: 1: PRIMANISM JENCE OU GI TO AI TO GI OU GI TO GI T	97 I: Mu I: 2 Y As Y S Org S O	sn Vaco Liner H al A hr S fis S le G er L	ys Alis G. sp P. er G er P ln A eu S	yr I la G	Asp 10 3lu Pro Phe Ile Ala 120	Pro 25 Val Leu Thr Ser Ala 105 Leu	Gly Ile Pro Arg 90 Gly Thr	Let His Se: 75 Hi: Ly Gl:	o Gl s Gl s Gl r Al s Hi s Pi n Pi	u T L 4 G G G G G G G G G G G G G G G G G G	hr ys 5 llu yr Pro Val	Lys 30 Glu Leu Arg Gln Cys 110 Phe	Pro Th. Ly. Ph Pr 95 Va	r V s T e 6 8 0 0 1 V u 5	lu al hr ely ofiln val	
988 999 100 110 110 110 110 110 110 110 110	3 <213 3 <210 3 <210 3 <20 4 Le 3 S S S S S S S S S S S S S S S S S S S	1> I 2> T 13> 00> u Ph u Va sn Le al Ph rg Le rg V rg A rg C	LENGTYPE: ORGA SEQUENCE Le al The 3! ro G: Oys P: eu S al T	TH: 1: PRIMANISM JENCE OU GI TO AI TO GI OU GI TO GI T	97 I: Mu I: 2 Y As Y S Org S O	sn Vacanta Andrews State of the Grant Andrews St	ys Alis G. sp P. er G er P ln A eu S	yr I la G	Asp 10 3lu Pro Phe Ile Ala 120	Pro 25 Val Leu Thr Ser Ala 105 Leu	Gly Ile Pro Arg 90 Gly Thr	Let His Se: 75 Hi: Ly Gl:	o Gluu Gluu Gluu Gluu Gluu Gluu Gluu Glu	u T L 4 G G G G G G G G G G G G G G G G G G	hr ys 5 llu yr Pro Val	Lys 30 Glu Leu Arg Gln Cys 110 Phe	Pro Th. Ly. Ph Pr 95 Va	o G r V s T e 6 o G l V vu s	lu al hr ely ofiln val	

RAW SEQUENCE LISTING

DATE: 05/31/2006 TIME: 13:23:45

PATENT APPLICATION: US/10/579,879

Input Set : A:\Sequence Listing.txt Output Set: N:\CRF4\05312006\J579879.raw

144 Lys Leu Lys Asp Leu Ala Ser Arg Val Thr Val Phe Thr Lys Glu Ile	
145 165 170 175 148 Gln Pro Lys Pro Asp Glu Val Gly Val Ala Gln Arg Met Glu Pro Arg	
149 180 185 190	
152 Lys Lys Arg Pro Ser	
153 195	
156 <210> SEQ ID NO: 3	
I57 <211> LENGTH: 1035	
158 <212> TYPE: DNA	
159 <213> ORGANISM: Mus musculus	
162 <220> FEATURE:	
163 <221> NAME/KEY: CDS 164 <222> LOCATION: (84)(779)	
164 <222> LOCATION: (647(7757) 165 <223> OTHER INFORMATION: Coding sequence	
167 -400 SROUENCE: 3	
168 tottgaggtt goggattitt tittititt tittititt tittitit tittit	60
170 gaagettoto tropaaccao ccc cto ttt ctg ggg aat gta tat aag ggg agt	113
Leu Phe Leu Gly Asn Val Tyr Lys Gly Ser	
1.72 A. S. C.	161
174 tta gca cct cgt agg gat gag gtg act agt cca aag gca gag ccc cag	161
175 Leu Ala Pro Arg Arg Asp Glu Val Thr Ser Pro Lys Ala Glu Pro Gin	
176	209
178 cca gag acg aag ccg gag aac ctt cca agg agc cac ggg gat gtt ggg 179 Pro Glu Thr Lys Pro Glu Asn Leu Pro Arg Ser His Gly Asp Val Gly	
35 40	
180 30 35 40 182 ctc cag aaa gag act gtg gtc cca ggc att gtg gat ttc gag ctg atc	257
182 Ctc day and gag acc gag goo ook ggo the State and Phe Glu Leu Ile	
104 45 50 55	
186 cat gag gag ctg aag acc aca aag ccc caa aca tca caa cca aca ccc	305
187 His Glu Glu Leu Lys Thr Thr Lys Pro Gln Thr Ser Gln Pro Thr Pro	
188 60 65 70	252
190 agt gcc tac cgc ttt gga cgc cta agc cac cat tcc ttc ttc tcg agg	353
191 Ser Ala Tyr Arg Phe Gly Arg Leu Ser His His Ser Phe Phe Ser Arg	
107 75	401
194 cac cac ccc caa cca cag cga gtg act cat atc caa gtt aca gga aga 195 His His Pro Gln Pro Gln Arg Val Thr His Ile Gln Val Thr Gly Arg	
100	
196 95 100 100 100 100 100 100 100 100 100 10	449
199 Glu Asp Leu Glu His Ser Leu Pro Leu Thr Thr Ser Phe Gln Leu Leu	
200 110 115 120	
202 cas get cet ggg gte cag ece atg gat ete act ece tet gea gat ate	497
203 Gln Ala Pro Gly Val Gln Pro Met Asp Leu Thr Pro Ser Ala Asp lie	
204 125 130 135	- A-
206 gct ggg aag cct gtc tgc gtg gtc agg gac gag ttc tct ctg tcg gcc	545
207 Ala Gly Lys Pro Val Cys Val Val Arg Asp Glu Phe Ser Leu Ser Ala	
208 140 145 150	593
210 ttg act cag ccc aca ttc tta tcc cgc tgt ctg atg ggg atg ccc acc	
211 Leu Thr Gln Pro Thr Phe Leu Ser Arg Cys Leu Met Gly Met Pro Thr 212 155 160 165 170	
212 155 160 163	

641

689

.737

779

. A second



PATENT APPLICATION: US/10/579,879

DATE: 05/31/2006 TIME: 13:23:45

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF4\05312006\J579879.raw

214 a 215 l	atc	tct	gtc (	CCC	att	ggg	gat	cca	cag	tcc Ser	aat Asn	cgg a	aac d	ccc Pro	cag ( Gln :	ctt Leu
215 I 216	шe	ser	var :	PIO	175	GTA	vob		<b>U</b>	180					185	
210	tct	act	tct	gac	acc	tgg	agg	aag	aaa	ctg	aag	gac	ctg 9	gct	tcc	cga
219	Ser	Thr	Ser .	Asp 190	Thr	Trp	Arg	Lys	Lys 195	Leu	Lys	Asp :	Leu :	А1а 200	ser.	Arg
222	gtg	act.	qtc	ttc	act	aag	gaa	atc	cag	cca	aag	CCC	gat	gag	gt.t	ggt
223	Val	Thr	Val	Phe	Thr	Lys	Glu	Ile	Gln	Pro	Lys	Pro .	Asp	Glu	Val	GTĀ
224			205					210					215 tot	+==		
226	gtt	gca	caa	aga	atg	gag	CCT	aga	Tue	Tare	Ara	cct	Ser	Laa		
	Val		Gin	arg	Met	GIU	225	Arg	цys	цуз	m-9	Pro 230				
228	~+ ~+	220	aa t	acto	aget	a ct	aaca	cqqq	ago	ggaa	ıgga	ccct	cata	ac c	tcga	aggtg
222			22 t	cass	gaaa	ic ac	caaaa	atcac	acc	ctago	aga	gaaa	ccca	ag a	ıayyy	LLCCC
224	-~-	-	cc t	ctas	agca	a ct	atto	ccaa	a cct	gtct	aat	gcct	tgac	CC	tgaa	Lacay
236	tttc	ctcac	ac t	gcag	gtaac	c c	etge	cccc	g aaa	ataaa	att	attt	tcat	ta	tact	tcaaa
238	aaaa	aaaaa	aa a	aaaa	aa						•					
		)> SE														· 3.46
		L> 'LE			31	₽.				•		•	•	•	•	
243	<212	2> TY 3> OF	(PE:	PKT	Mine	m11©	~11] 11:	=								
246	-40	n - CT	COLLEGE	10E .	4											
240	T.011	Dhe	Leu	Glv	Asn	Val	Tyr	Lys	Gly	Ser	Leu	Ala	Pro	Arg	Arg	Asp
240	1				5					10					72	
252	Glu	Val	Thr	Ser	Pro	Lys	Ala	Glu	Pro	Gln	Pro	Glu	Thr	Lys	Pro	Glu
252				20					25					30		
256	Asn	Leu		Arg	Ser	His	Gly	Asp	Val	Gly	Leu	Gln	ьуs 45	GIU	THE	vai
257			35	-7 -	77_7	7	Dho	40	T.eus	Tle	His	Glu		Leu	Lvs	Thr
	Val		GIĀ	TIE	vaı	Asp	55	GIU	neu		****	60			-4	
261	Thr	50 Tare	Pro	Gln	Thr	Ser	Gln	Pro	Thr	Pro	Ser	Ala	Tyr	Arg	Phe	Gly
265	<i>C</i> E					70					75					80
268	Arq	Leu	Ser	His	His	Ser	Phe	Phe	Ser	Arg	His	His	Pro	Gln	Pro	Gln
260					85					90					90	
272	Arg	Val	Thr			Gln	Val	Thr	Gly	Arg	GIU	Asp	Leu	110	nıs	Ser
273		_		100			Dho	Gl n	105		G1 n	Ala	Pro			Gln
		Pro	ьеи 115	Thr	THE	ser	Pile	120	neu	. Deu	011		125	,		
277	Dro	Mot	TID	T.e.	Thr	Pro	Ser	Ala	Asp	Ile	Ala	Gly	Lys	Pro	Val	Cys
201		120					135	,				140				
284	Val	Val	Arq	Asp	Glu	Phe	Ser	Leu	Ser	Ala	Let	Thr	Gln	Pro	Thr	Phe
205	3 4 5	:				150	)				155	)				100
288	Lev	ı Ser	Arg	Cys	Leu	Met	: Gly	Met	Pro	Thr	Ile	Ser	Val	Pro	) Ile	Gly
200					165	;				170					1/3	
292	Asp	Pro	Gln			Arg	, Asr	Pro	GII	ı ьеч	sei	int	ser	190	) · TITT	Trp
293	_	_		180	) . *	. T		. »ı-	185		va!	ሞኮ፣	Val			Lys
		Lys			гтуя	AS[	, ner	200	)	. ALG	1 400		205			- <b>.</b>
297	מו	, Tl-	195 Gln	Dro	Tur	pro	) Ast	Gli	v 1 Val	Glv	val	Ala			g Met	Glu
300	GIL	1 116	: GTI		, wys	,	200}		_ ,	,	,			•		



PATENT APPLICATION: US/10/579,879

DATE: 05/31/2006 TIME: 13:23:45

Input Set: A:\Sequence Listing.txt
Output Set: N:\CRF4\05312006\J579879.raw

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220
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    304 Pro Arg Lys Lys Arg Pro Ser
    305 225
    308 <210> SEQ ID NO: 5
    309 <211> LENGTH: 2117
    310 <212> TYPE: DNA
    311 <213> ORGANISM: Mus musculus
    314 <220> FEATURE:
    315 <221> NAME/KEY: CDS
    316 <222> LOCATION: (40)..(1365)
    318 <400> SEQUENCE: 5
    319 aagaaaagaa ggagaataga ggagctgctg gctgagaaa atg gct gtt gat ggt
                                                                               54
                                                    Met Ala Val Asp Gly
    320
    321
    323 ggg tgt ggg gac act gga gac tgg gaa ggt cgc tgg aac cat gta aag
                                                                               102
    324 Gly Cys Gly Asp Thr Gly Asp Trp Glu Gly Arg Trp Asn His Val Lys
                                             15
                        10
    327 aag ttc ctc gag cgg tct gga ccc ttc aca cac ccc gat ttc gaa cca
                                                                               150
    328 Lys. Phe Leu Glu Arg Ser Gly Pro Phe Thr His Pro Asp Phe Glu Pro
                                                                                  ·
                                         30
    331 agc act gaa tea etc eag tte ttg tta gat aca tgt aaa gtt eta gte
                                                                               198
    332 Ser Thr Glu Ser Leu Gln Phe Leu Leu Asp Thr Cys Lys Val Leu Val
                                                                               246
    335 att gga gct ggt ggc tta gga tgt gag ctt ctg aaa aat ctg gca tta
    336 Ile Gly Ala Gly Gly Leu Gly Cys Glu Leu Leu Lys Asn Leu Ala Leu
            55
                                 60
    337
    339 tot ggt ttt aga cag att cat gtt ata gac atg gac act ata gat gtt
                                                                                294
    340 Ser Gly Phe Arg Gln Ile His Val Ile Asp Met Asp Thr Ile Asp Val
                                                                                      2/5 Explorent
xqq1/ocalient
?ee pg-6
    343 tcc aat tta aat aga cag ttt tta ttt agg cct aaa gat gty gga aga
W--> 344 Ser Asn Leu Asn Arg Gln Phe Leu Phe Arg Pro Lys Asp (Xaa)Gly Arg
                                                                100
                                              95
                         90
    345
     347 ccc aag gct gaa gtt gct gca gaa ttc cta aat gac aga gtt cct aac
    348 Pro Lys Ala Glu Val Ala Ala Glu Phe Leu Asn Asp Arg Val Pro Asn
                                         110
                     105
     351 tgc aac gtg gtm cca cat ttc aac aag atw caa gat ttt aac gac act
  -> 352 Cys Asn Val (Xaa) Pro His Phe Asn Lys Xaa Gln Asp Phe Asn Asp Thr
                                                          130
                 120
                                     125
     355 ttc tac cga caa ttt cat atc att gta tgt ggc ctg gac tct atc ata
                                                                                486
     356 Phe Tyr Arg Gln Phe His Ile Ile Val Cys Gly Leu Asp Ser Ile Ile
                                 140
     359 gcg aga aga tgg atc aat gga atg ctg ata tct ctt cta aat tat gaa
                                                                                534
     360 Ala Arg Arg Trp Ile Asn Gly Met Leu Ile Ser Leu Leu Asn Tyr Glu
                             155
                                                  160
     361 150
     363 gat ggt gtg ttg gat cca agc tcc att gta cct ttg ata gat ggg ggg
                                                                                582
     364 Asp Gly Val Leu Asp Pro Ser Ser Ile Val Pro Leu Ile Asp Gly Gly
                                              175
                         170
     367 aca gaa ggc ttt aaa ggg aat gcc cga gtg att ttg cct gga atg acc
                                                                                630
     368 Thr Glu Gly Phe Lys Gly Asn Ala Arg Val Ile Leu Pro Gly Met Thr
```

RAW SEQUENCE LISTING ERROR SUMMARY

PATENT APPLICATION: US/10/579,879

DATE: 05/31/2006

TIME: 13:23:46

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF4\05312006\J579879.raw

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:5; Xaa Pos. 99,121,127,222 Seq#:6; Yaa Pos. 99,121,127,222

As I and the second

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/579,879

DATE: 05/31/2006 TIME: 13:23:46

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF4\05312006\J579879.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:344 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ ID#:5

L:344 M:255 W: Mandatory reature missing, <223> Tag not found for SEC L:344 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:342 L:352 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:438 L:376 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:726 L:511 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:96 L:515 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:112 L:539 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:208

S & 4 19 6